REMARKS

Claims 1, 15-18 and 27 are pending in this application. Claims 1 and 15 are the only independent claims under consideration. Claims 2-4 and 28-36 are cancelled and claims 5-14 and 19-26 are withdrawn from consideration.

By this amendment, claims 1 and 15 are amended for clarity and claims 2 and 28-32 are canceled. Reconsideration in view of the above amendments and following remarks is respectfully solicited.

Allowable Subject Matter

Applicant respectfully submits that but for the rejections under 35 U.S.C. 112, claims 15, 16, 17 and 18 appear to be allowable due to the lack of any art being cited pertaining thereto.

The Claims Satisfy The Requirements Of
35 U.S.C. §112, 1st and 2nd Paragraphs

The Office Action rejects: (1) claims 1, 2, 15-18 and 27-32 under 35 U.S.C. §112, 1st paragraph; and (2) claims 1, 2, 15-18, 27 and 28 under 35 U.S.C. §112, 2nd paragraph. These rejections are respectfully traversed.

The Office Action rejects claims 1, 2, 15-18 and 27-32 under 112, 1st paragraph because the Examiner alleges that the specification does not provide adequate support for the following limitations:

"...a frame feature value which is numerical information representing quantity of a feature contained in a

frame of image data,… and is not a component of said image data."

Applicant respectfully submits that the specification does indeed provide support for the above-noted limitation. For example, on at least page 10 of the specification applicant discloses that a prediction mode Prediction mode counting unit 201 counts the number of blocks coded in accordance with respective prediction methods, frame by frame. In a forward prediction coding frame (F frame), the number of I blocks coded in accordance with interframe prediction and the number of F blocks coded in accordance with interframe prediction are counted, respectively. In a bidirectional prediction coding frame (frame coded by bidirectional prediction) (B frame), the number of I blocks coded in accordance with intraframe prediction, the number of F blocks coded in accordance with forward interframe prediction, the number of B blocks coded in accordance with backward interframe prediction and the number of Bi blocks coded in accordance with bidirectional interframe prediction are counted, respectively.

Furthermore, the present specification discloses that the prediction mode counting unit 201 outputs, as block prediction mode frequency information for each frame, the total number Ff of F blocks for the F frame, and the total number Bf (= F + Bi) of forward interframe prediction blocks (total number of blocks coded in accordance with forward interframe prediction) and total number Bb (= B + Bi) (total number of blocks coded in accordance with backward interframe prediction) for the B frame. In addition, frequency information converting unit 202 converts these pieces of frequency information to attribute information for each frame (in the following, the attribute information

related to each frame will be referred to as the "frame feature value"). (see present specification, page 10, lines 4-30).

In other words, in the present specification the claimed "quantity of a feature contained in a frame" is calculated by the counting unit. As such, the specification does indeed describe the subject matter claimed in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

As for the rejection under 112, 2nd paragraph, the Office Action rejects claims 1, 2, 15-18, 27 and 28 because the Examiner alleges that the claims are indefinite and vague because it is not understood how the frame feature value could be calculated by image data and not be a component of the image data. Applicant respectfully points out that the 112 rejection as to claims 2 and 28 is moot in light of the cancellation of claims 2 and 28.

Furthermore, applicant respectfully submits that the amendments to claims 1, 15 and 27 obviate the rejection of claims 1, 15-18 and 27 under 35 U.S.C. §112, 2nd paragraph.

In particular, the amended claims 1 and 15 clarify how the frame feature value is calculated by analyzing statistics of motion vector information related to the image data and how the frame feature value is not originally contained within the image data.

Accordingly, withdrawal of the rejection of claims 1, 2, 15-18, 27 and 28 under 35 U.S.C. §112, 2nd paragraph and the rejection of claims 1, 2, 15-18 and 27-32 under 35 U.S.C. §112, 1st paragraph are respectfully requested.

The Claims Define Patentable Subject Matter

The Office Action rejects:

(1) claims 1, 27 and 31 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,642,174 to Kazui et al. in view of U.S. Patent No. 5,805,746 to Miyatake et al.:

(2) claims 2, 28 and 32 under 35 U.S.C. §103(a) as being unpatentable over Kazui in view of Miyatake and further in view of U.S. Patent No. 6,400,890 to Nagasaka et al.;

(3) claim 29 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,754,233 to Takashima in view of Miyatake and further in view of Nagasaka; and

(4) claim 30 under 35 U.S.C. §103(a) as being unpatentable over Takashima in view of Nagasaka, Miyatake and Kazui.

The above-noted rejections are respectfully traversed.

The combination of Kazui and Miyatake
fails to make obvious claims 1 and 27

Initially, applicant respectfully submits that the rejection under 103(a) as to claim 31 is moot in light of the cancellation of claim 31.

Furthermore, applicant respectfully submits that the combination of Kazui and Miyatake fails to teach or suggest each and every feature as set forth in claims 1 and 27.

Independent claim 1 recites, *inter alia,* an image retrieval information storing apparatus including a frame feature value generating unit. The frame feature value generating unit generates a frame feature value. The frame feature value is numerical information representing quantity of a feature contained in a frame of image data. The frame feature value is

calculated by analyzing statistics of motion vector information related to the image data and the frame feature value is not originally contained within the image data. A frame feature value storing unit is for storing the frame feature value in correlation with a frame of the image data. The frame feature value storing unit is connected to said frame feature value generating unit.

Dependent claim 27 recites, *inter alia,* the image retrieval storing apparatus according to claim 1, further comprising a coding information reading unit for reading motion vector information from the image data which is coded. The frame feature value generating unit generates the frame feature value based on the motion vector information.

The Office Action concedes that Kazui fails to teach or suggest the frame feature value generating unit for generating the fame feature value which is numerical information representing quantity of a feature contained in a frame of image data and outputting a prediction mode frame feature value which is numerical information representing quantity of a feature contained in a frame of the coded image data, as set forth in claim 1. (see Office Action, page 6, last paragraph). In an attempt to make up for the deficiencies found in Kazui, the Examiner imports Miyatake. The Office Action alleges that Miyatake discloses the use of the assignment of codes representing a particular quantity of a feature contained in a frame of image data and direct our attention to col. 1, line 62 to col. 2, line 2 and col. 2 lines 30-41 of Miyatake. Applicant respectfully disagrees with this assertion.

Applicant respectfully submits that a close reading of the cited portion of Miyatake reveals that a feature is calculated

from a digitized area or a time length of a scene change between frame forming a frame string. (see Miyatake, col. 1, lines 64-66).

In contrast to Miyatake, the present invention as set forth in claim 1, calculates the frame feature value by analyzing statistics of motion vector information related to the image data, and the frame feature value is not originally contained in the image data. In contrast to the present invention, Miyatake uses a digitized area (of the frame) or a time length of a scene change, i.e. components originally found in the image data itself to calculate its frame feature value.

The Examiner asserts that Miyatake's assignment of codes represents a particular quantity of a feature contained in a frame. (see Office Action page 7). As such, the Examiner is attempting to equate Miyatake's assignments of codes with the claimed frame feature values. However, applicant respectfully disagrees with such a correlation between Miyatake's assignment of codes and the claimed frame feature value because Miyatake's assignment of codes occurs after the feature(s) is calculated and the codes are based on which range the feature belongs to. Thus, Miyatake's feature value cannot be calculated by analyzing statistics of motion vector information related to the image data.

As such, applicant respectfully submits that not only does the combination of Kazui and Miyatake fails to teach or suggest each and every feature as set forth in the claimed invention but that it would not have been obvious to one of ordinary skill in the art to modify the teaching of Kazui with Miyatake's code assignments to arrive at the claimed invention.

Furthermore, although Takashima is not being applied against claim 1, applicants respectfully submits that Takashima also fails to teach or suggest the claimed frame feature value being calculated by analyzing statistics of motion vector information related to the image data. In paragraph 9 of the office Action the Examiner alleges that Takashima discloses a frame feature value generating unit for calculating statistics of motion vector. However, upon applicant's close review of Takashima it is discovered that what is used for detecting scene change in Takashima is the statistics (the sum of absolute values) *associated with residuals of image signals* obtained in detecting the motion vectors, not the statistics of the motion vector. As such, Takashima neither teaches nor suggests using the statistics of the motion vector itself, as set forth in the claimed invention.

In other words, in Takashima the information used for detecting scene change is residuals of image signals obtained from detecting the motion vector, and the absolute values for the residuals are used for detecting the scene change. Therefore, Takashima is clearly different from the motion vector frame feature value of the present invention, which is calculated from statistics of the motion vector.

In addition, neither Kazui, Miyatake or Nagasaka teaches nor suggests that the frame feature value is obtained based on the statistics of the motion vectors as disclosed in the present invention.

Applicant respectfully submits that independent claim 1 is allowable over the combination of Kazui and Miyatake (or any other of the cited references) for at least the reasons noted above.

As for dependent claim 27, this claim is also allowable for at least the reasons set forth above regarding its corresponding independent claim 1, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1 and 27 under 35 U.S.C. §103(a) is respectfully requested.

The combination of Kazui, Miyatake & Nagasaka fails to make claims 2, 28 and 32 obvious

Applicant respectfully submits that the rejection under 103(a) as to claims 2, 28 and 32 is moot in light of the cancellation of claims 2, 28 and 32.

Accordingly, withdrawal of the rejection of claims 2, 28 and 32 under 103(a) is respectfully requested.

The combination of Takashima, Miyatake & Nagasaka fails to make claim 29 obvious

Applicant respectfully submits that the rejection under 103(a) as to claim 29 is moot in light of the cancellation of claim 29.

Accordingly, withdrawal of the rejection of claim 29 under 103(a) is respectfully requested.

The combination of Takashima, Miyatake, Nagasaka & Kazui fails to make claim 30 obvious

Applicant respectfully submits that the rejection under 103(a) as to claim 30 is moot in light of the cancellation of claim 30.

Accordingly, withdrawal of the rejection of claim 30 under 103(a) is respectfully requested.
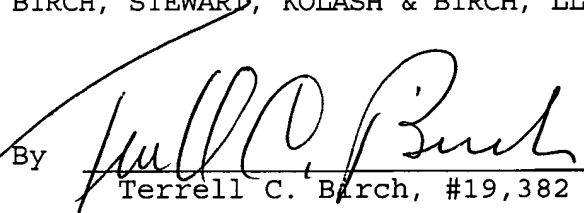
Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 **to schedule a Personal Interview**.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

Respectfully submitted,

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